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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/481,043	01/11/2000	RANDALL L. SIMPSON	IL-10127B	5097

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EXAMINER	
FELTON, AILEEN BAKER	
ART UNIT	**PAPER NUMBER**
1755	

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/481,043	SIMPSON ET AL.	
	Examiner	Art Unit	
	Aileen B. Felton	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,26-38,40,41 and 45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,26-38,40,41 and 45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 26-38, 40, 41, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Attia (6,080,281) in view of Barnhard, IV et al (4,058,420) and the article from Science and Technology Review.

Attia discloses the use of sol-gel processing to form mixed oxides. The mixed oxides can be energetic. The particular sol-gel process is not disclosed.

Barnhard, IV et al discloses the use of RDX and PETN in a gelled explosive that uses silica gel as the thickener.

The article from Science and Technology Review (pg 23). teaches the use of a sol-gel process that is less expensive.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the sol-gel processing disclosed by Attia with the explosive taught by Barnhard since Attia discloses that the sol-gel processing is capable of being used with energetic applications. It would also have been obvious to use the improved sol-gel process as taught by the Science and Technology article with the composition

disclosed by Attia and Barnhard since the article suggests that the method is less expensive and also that it forms a better aerogel.

3. Claims 1, 26-38, 40, 41, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Attia (6,080,281) in view of Mueller et al (3,730,789) and the article from Science and Technology Review.

Attia discloses the use of sol-gel processing to form mixed oxides. The mixed oxides can be energetic. The particular sol-gel process is not disclosed.

Mueller et al teaches the use of ammonium perchlorate in a gelled monopropellant composition that uses silica gel as the thickener.

The article from Science and Technology Review (pg 23). teaches the use of a sol-gel process that is less expensive.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the sol-gel processing disclosed by Attia with the explosive taught by Mueller since Attia discloses that the sol-gel processing is capable of being used with energetic applications. It would also have been obvious to use the improved sol-gel process as taught by the Science and Technology article with the composition disclosed by Attia and Mueller since the article suggests that the method is less expensive and also that it forms a better aerogel.

4. Claims 1, 26-38, 40, 41 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katsuta et al(4,317,691) in view of Mueller et al (3,730,789) and the article from Science and Technology Review.

Katsuta discloses the use of aerogel which is made by the sol-gel processing with an explosive composition. The claims do not require all of the composition to be made by the sol-gel process and this reference discloses a portion of the explosive being formed by the sol-gel process.

Mueller et al discloses the use of ammonium perchlorate in a gelled monopropellant composition that uses silica gel as the thickener.

The article from Science and Technology Review (pg 23). teaches the use of a sol-gel process that is less expensive.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the sol-gel processing disclosed by Katsuta with the explosive taught by Mueller since Katsuta discloses that the sol-gel processing is capable of being used with explosive applications. It would also have been obvious to use the improved sol-gel process as taught by the Science and Technology article with the composition disclosed by Attia and Mueller since the article suggests that the method is less expensive and also that it forms a better aerogel.

5. Claims 1, 26-38, 40, 41 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katsuta et al(4,317,691) in view of Barnhard, IV et al (4,058,420) and the article from Science and Technology Review.

Katsuta discloses the use of aerogel which is made by the sol-gel processing with an explosive composition. The claims do not require all of the composition to be made by the sol-gel process and this reference discloses a portion of the explosive being formed by the sol-gel process.

Barnhard, IV et al discloses the use of RDX and PETN in a gelled explosive that uses silica gel as the thickener.

The article from Science and Technology Review (pg 23). teaches the use of a sol-gel process that is less expensive.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the sol-gel processing disclosed by Katsuta with the explosive taught by Barnhard since Katsuta discloses that the sol-gel processing is capable of being used with explosive applications. It would also have been obvious to use the improved sol-gel process as taught by the Science and Technology article with the composition disclosed by Attia and Barnhard since the article suggests that the method is less expensive and also that it forms a better aerogel.

Response to Arguments

6. Applicant's arguments filed have been fully considered but they are not persuasive. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's arguments, the recitation "solid" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not

depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aileen B. Felton whose telephone number is 571.272.6875. The examiner can normally be reached on Monday-Friday 6:30-4:00, except alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571.272.1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aileen Felton

AILEEN FELTON
PRIMARY EXAMINER